

**What are the barriers and facilitators to physical activity participation in community dwelling adults with dementia? A systematic review of physical activity correlates and implications for physical therapy practice**

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### **Objective**

Physical activity shows promise as a modifiable lifestyle intervention to benefit pathological symptoms of dementia. However, little is known about the factors affecting participation in physical activity in community dwelling adults with dementia. A systematic review was undertaken to identify all correlates associated with physical activity participation.

### **Method**

Two independent reviewers searched major electronic databases using the medical subject headings 'physical activity' or 'exercise' or 'physical inactivity' or 'sedentary' and 'dementia', or 'Alzheimer's disease' or 'vascular dementia' or 'Lewy Body dementia' or 'frontotemporal dementia'. Two reviewers conducted the data extraction.

### **Results**

Out of a potential of 118 articles, 12 met the eligibility criteria encompassing 752 participants. We identified a number of facilitators to physical activity including increased energy intake, resting metabolic rate, fat free mass, gait speed, global motor function, overall health related quality of life (HRQOL), physical HRQOL, higher levels of social functioning and reduced apathy. Barriers to physical activity participation included taking > four medications, dizziness, lower ADL function, a history of falls, less waking hours in the day, more autonomic problems and delirium. Increasing age and lower global cognition were not associated with physical activity.

### **Conclusions**

It is encouraging that increasing age and lower global cognition do not appear to be barriers to physical activity. All significant correlates should be confirmed in prospective studies with particular focus on the relationship of physical activity and gait speed, ADL function, falls history and dietary intake and the progression of frailty and nursing home admission as a priority. Implications for physical therapy practice will be discussed.